04-26-2024 LETTING ITEM 149

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED

HIGHWAY PLANS

PROJECT HBFP-P82F(069)

C-99-055-23

SECTION (41-B)BDR-1

WILLIAMSON COUNTY

FAP ROUTE 726 (IL ROUTE 148)

STRUCTURE REHABILITATION

WILLIAMSON 27

EXISTING SN 100-0037 © STRUCTURE STA 364+54.00 (IL ROUTE 148) OVER MIDDLE FORK CREEK

31214

DATE SIGNED: 1/1 0/ 224 LICENSE

D-99-039-23



PROFESSION ENGINEER

OF

SEAL

TRAFFIC DATA

FOR INDEX OF SHEETS, SEE SHEET NO. 3

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4 TO 5

ROADWAY CLASSIFICATION: MINOR ARTERIAL DESIGN SPEED = 55 MPH CURRENT ADT (2021) = 4,700 **DESIGN YEAR ADT (2044) = 5,910** MU = 8.5%

TOWNSHIPS

SOUTHERN

 \circ

 \circ

DESIGN DESIGNATION: N/A

COORDINATE SYSTEM: N/A

POSTED SPEED: 55 MPH

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER: EHREN KIRBY, P.E. PROJECT MANAGER: CMT INC. / CDI INC.

CONTRACT NO. 78A06

R1E R2E R₂E R1E

> GROSS LENGTH = 99.25 FT. = 0.019 MILES NET LENGTH = 99.25 FT. = 0.019 MILES

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

March 22, 202

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

Prepared By:

DISTRICT STUDIES & PLANS ENGINEER

Examined By: Mancy (exposition Engineer

Examined By: Carrie Nulser DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: DISTRICT OPERATIONS ENGINEER

Examined By:

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

Dolo A Truck

DISTRICT CONSTRUCTION ENGINEER

Examined By: A and Hay DISTRICT MATERIALS ENGINEER

DESIGNED . REVISED . DRAWN REVISED . REVISED .

SIGNATURES

REV. - MS

CONTRACT NO

SIAIEU	r illinuis
DEPARTMENT OF	TRANSPORTATION

INDEX OF SHEETS

GENERAL NOTES

COMMITMENTS

NONE.

COVER SIGNATURE

2 SIGNATURE
3 GENERAL NOTES
4 - 5 SUMMARY OF QUANTITIES
6 TYPICAL SECTION
7 SCHEDULES OF QUANTITIES
8 - 10 MAINTENANCE OF TRAFFIC
11 WIDE LOAD SIGNING PLAN
12 - 27 STRUCTURE PLANS - S.N. 100-0037 (E)

HIGHWAY STANDARDS

00001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02 AREAS OF REINFORCEMENT BARS
001006 DECIMAL OF AN INCH AND OF A FOOT
701201-05 LANE CLOSURE 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701301-04 LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
701311-03 LANE CLOSURE 2L, 2W, MOVING OPERATIONS
701321-18 LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-09 TRAFFIC CONTROL DEVICES
704001-08 TEMPORARY CONCRETE BARRIER

704001-08 TEMPORARY CONCRETE BARRIER

780001-05 TYPICAL PAVEMENT MARKINGS

782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)

1.	F.A.P.726 CENTERLINE STATIONING PROVIDED IS FOR LONGITUDINAL REFERENCE ONLY AND IS NOT BASED
	ON ACTUAL FIELD SURVEY OR RECORD INVENTORY DATA. ALL OFFSETS AND RESPECTIVE SITE LAYOUT
	SHOULD BE TAKEN FROM PHYSICAL FEATURES IN THE FIELD AND AS PROVIDED BY THE ENGINEER.

	F.A.P. 726 (IL ROUTE 148)					F.A.P. SECTION			COUNTY	TOTAL SHEETS	SHEE NO.	
	GENERAL NOTES				726	(41-B)	(41-B)BDR-1			28	3	
									CONTRACT	NO. 78/	A06	
	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PF					

SCALE:

CONSTR. CODE

F.A.P. 726 - WILLIAMSON COUNTY

FUNDING: 80% FEDERAL, 20% STATE

Marie Mar				1	
NO. TIEN UNIT QUATITY SALIDS-0017 90102400 CONCRETE REMOVAL CU 70 6 6 90102400 CONCRETE REMOVAL CU 70 6 6 90300100 FLOOR GRAINIS EACH 6 6 90300255 CONCRETE SUPERSTRUCTURE CU 70 15 15 90300256 CONCRETE SUPERSTRUCTURE CU 70 15 15 90300257 CONCRETE SUPERSTRUCTURE CU 70 15 15 90300258 CRICCE PECK CROOVING 50 70 287 287 90300259 RRICCE PECK CROOVING 50 70 287 287 90300300 RRICCE PECK CROOVING 50 70 309 309 90300300 REMORDED END CONTECT FOURD 1.050 1.050 90300301 REMORDED FIRED END CONTECT FOURD 1.050 1.050 90300302 REMORDED FIRED END CONTECT FOURD 1.0 1 90300303 ROSINEERS FIRED OFFICE. TYPE A FOURD 1.0 <					BRIDGE
SOUTH SOUT	CODE			TOTAL	0047
STATE STAT	NO.	ІТЕМ	UNIT	QUANTITY	S.N. 100-0037
STATE STAT					
SOUTH SOUT	50102400	CONCRETE REMOVAL	CU YD	8	8
SOUTH SOUT					
SINDER DECK GROOVING	50300100	FLOOR DRAINS	EACH	8	8
SINDER DECK GROOVING					
SOUTH SOUT	50300255	CONCRETE SUPERSTRUCTURE	CU YD	15	15
SOUTH SOUT					
50800205 REINFORCEMENT BARS, EPOXY COATED POUND 1,050 1,050 50800205 REINFORCEMENT BARS, EPOXY COATED POUND 1,050 1,050 508002015 BAR SPLICERS EACH 12 12 67000400 ENGINEERIS FIELD OFFICE, TYPE A CAL MO 4 4 67100100 MOBILIZATION 1 1 1 70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 EACH 1 1 70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM 1 1 70100500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12	50300260	BRIDGE DECK GROOVING	SQ YD	287	287
50800205 REINFORCEMENT BARS, EPOXY COATED POUND 1,050 1,050 50800205 REINFORCEMENT BARS, EPOXY COATED POUND 1,050 1,050 508002015 BAR SPLICERS EACH 12 12 67000400 ENGINEERIS FIELD OFFICE, TYPE A CAL MO 4 4 67100100 MOBILIZATION 1 1 1 70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 EACH 1 1 70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM 1 1 70100500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12					
S0800515 BAR SPLICERS	50300300	PROTECTIVE COAT	SQ YD	309	309
S0800515 BAR SPLICERS					
FOR THE PROPERTY FUNDS FIRED OFFICE, TYPE A CAL MO	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,050	1,050
FOR THE PROPERTY FUNDS FIRED OFFICE, TYPE A CAL MO					
Composition	50800515	BAR SPLICERS	EACH	12	12
Composition					
70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 EACH 1 1 70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 LSUM 1 1 70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 EACH 1 1 70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 LSUM 1 1 70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12					
70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM 1 1 70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12 8 Image: Control and Protection, STANDARD 701201 1 1 9 EACH 1 1 1 1 1 1	67100100	MOBILIZATION	L SUM	1	1
70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM 1 1 70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12 8 Image: Control and Protection, STANDARD 701201 1 1 9 EACH 1 1 1 1 1 1					
70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 1 1 70106700 TEMPORARY RUMBLE STRIPS EACH 12 12					
70106700 TEMPORARY RUMBLE STRIPS EACH 12 12	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106700 TEMPORARY RUMBLE STRIPS EACH 12 12					
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70107025 CHANGEABLE MESSAGE SIGN CAL DA 42 42	70106700	TEMPORARY RUMBLE STRIPS	EACH	12	12
70107025 CHANGEABLE MESSAGE SIGN CAL DA 42 42					
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	42	42

REV. - MS

USER NAME = byoung	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/30/2024	DATE -	REVISED -

TO STA.

SCALE:

CONSTR. CODE

F.A.P. 726 - WILLIAMSON COUNTY

FUNDING: 80% FEDERAL, 20% STATE

					BRIDGE
	CODE			TOTAL	0047
	NO.	ITEM	UNIT	QUANTITY	S.N. 100-0037
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	375	375
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375	375
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	230	230
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	8	8
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	77	77
*	86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1	1
	X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	42	42
	Z0012147	BRIDGE DECK SCARIFICATION 2 3/8"	SQ YD	309	309
	Z0012167	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 3/8	SQ YD	289	289
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	14	14
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	7	7
1					

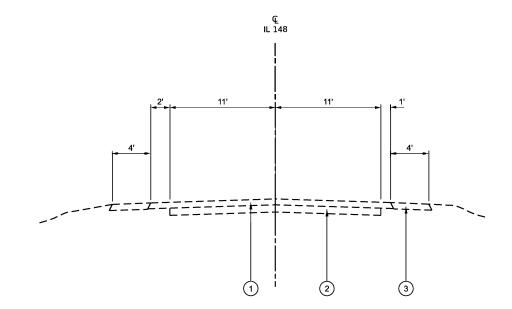
* SPECIALTY ITEM

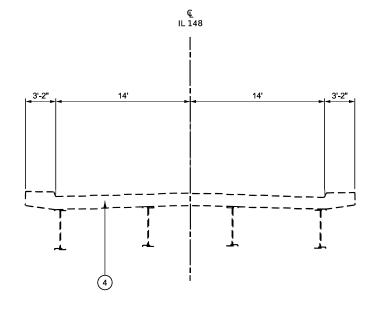
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. 726 (IL ROUTE 148)
SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

SECTION	COUNTY	SHEETS	NO.	
726	(41-B)BDR-1	WILLIAMSON	28	5
CONTRACT NO. 78A06		ILLINOIS	FED. AID PROJECT	NO. 78A06





) EXISTING HMA PAVEMENT, 71/4"

) EXISTING PCC PAVEMENT, 9"

EXISTING HMA SHOULDERS, VARIES 111/4" TO 91/2"

REINFORCED CONCRETE SLAB, 1'-31/2" (BRIDGE DECK / S.N. 100-0037)

EXISTING F.A.P. 726 (IL 148)

(LOOKING EAST) STA. 360+74 TO STA. 364+04 STA. 365+04 TO STA. 368+29

EXISTING F.A.P. 726 (IL 148)

(LOOKING EAST) S.N. 100-0037 STA. 364+04 TO STA. 365+04

SCALE:

USER NAME = byoung	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/5/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.	F.A.P. 726 (IL ROUTE 148)				F.A.P. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHE		
TYPICAL SECTION				726	(41-B)	(41-B)BDR-1			28	(
ITPICAL SECTION							CONTRAC	ΓNO. 78	A06				
SHEET 1	OF	1	SHEETS	STA.		TO STA.	ILLINOIS FED. AII			FED. AID	PROJECT		

NAME: L:\IDOT\22006610-00\WO_05\Draw\Roadway\CADI

MAINTENANCE OF TRAFFIC SCHEDULE

	STATIO	N	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATOR, TEMPORARY (FULLY- REDIRECTIVE, NARROW), TEST LEVEL 3	IMPACT ATTENUATOR, RELOCATE (FULY- REDIRECTIVE, NARROW), TEST LEVEL 3	BARRIER WALL REFLECTORS, TYPE C
STA.	то	STA.	FOOT	FOOT	EACH	EACH	EACH
9	STAGE	1					
362+66.50	то	366+00.00	333,5		1		3
366+00.00	то	366+41.50	41.5		1		1
	STAGE 2						
362+66.50 TO 366+00.00		366+00.00		333.5		1	3
366+00.00 TO 366+41.50			41.5		1	1	
TOTAL			375	375	2	2	8

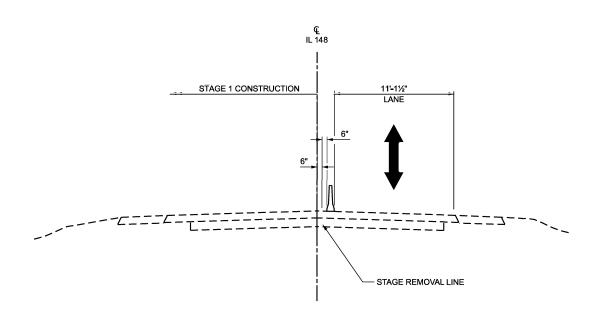
PAVEMENT MARKING SCHEDULE

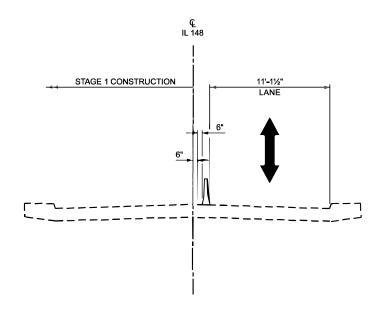
L	OCATIO	ON	PA PAVE MARI LIN	PAVEMENT MARKING REMOVAL - GRINDING	
			WHITE	YELLOW	
STA.	то	STA.	FOOT	SQ FT	
360+74.71	то	368+28.94	200	200 30	
	TOTAL		2	77	

*PERMANENT PAVEMENT MARKING LINES SHOULD MATCH THE ORIGINAL PAVEMENT MARKING LINES ON THE ROADWAY

Schedules [Sheet]

USER NAME = byoung	DESIGNED -	REVISED -			FΔ	P 726	S (IL ROLL	TF 148)		F.A.P.	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	F.A.P. 726 (IL ROUTE 148) SCHEDULE OF QUANTITIES						726	(41-B)BDR-1	WILLIAMSON	28	7
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION								,	CONTRAC	T NO. 78/	. 06
PLOT DATE = 1/30/2024	DATE -	REVISED -	DEPARTMENT OF TRANSPORTATION	SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		





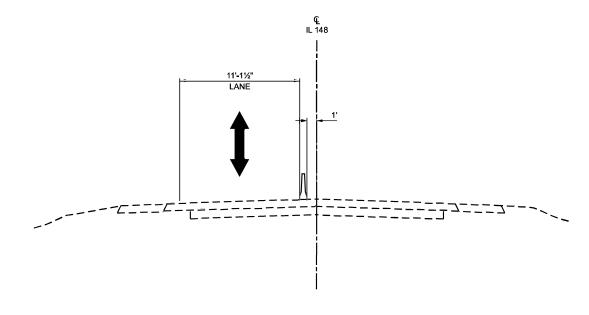
TRAFFIC CONTROL NOTES

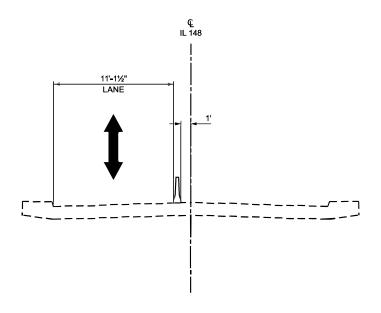
- 1. TWO PHASE SIGNAL OPERATIONS IS REQUIRED WHEN HWY STD 701321 IS IN EFFECT. THE ENGINEER OF TRAFFIC SHALL APPROVE ALL TIMING
- 2. THE CONTRACTOR WILL HAVE THE OPTION TO USE MICROWAVE DETECTION FOR USE WITH THE TEMPORARY TRAFFIC SIGNALS IN ACCORDANCE WITH HWY
- 3. REMOVAL OF THE RUMBLE STRIPS AFTER STAGED CONSTRUCTION SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER, ANY DAMAGE TO THE EXISTING PAVEMENT FROM THE RUMBLE STRIPS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THERE WILL BE NO ADDITIONAL COMPENSATION.
- 4. ALL TEMPORARY PAVEMENT MARKINGS, DRUMS, ETC. SHALL BE PLACED PRIOR TO THE PLACING TEMPORARY CONCRETE BARRIERS.
- 5. COVER CONFLICTING ROADWAY SIGNS AS NECESSARY.

STAGE 1 CONSTRUCTION (ROADWAY)

(LOOKING EAST)

STAGE 1 CONSTRUCTION (BRIDGE)





(LOOKING EAST)

STAGE 2 CONSTRUCTION (ROADWAY)

(LOOKING EAST)

STAGE 2 CONSTRUCTION (BRIDGE)

(LOOKING EAST)

STAGE CONSTRUCTION GENERAL NOTES

- 1. ONE LANE OF TRAFFIC ON IL 148 SHALL BE MAINTAINED AT ALL TIMES.
- 2. EMERGENCY ACCESS SHALL BE PROVIDED AT ALL TIMES.
- 3. THE IL 148 Ç AS SHOWN SHOULD BE USED FOR GRAPHICAL REFERENCE ONLY.

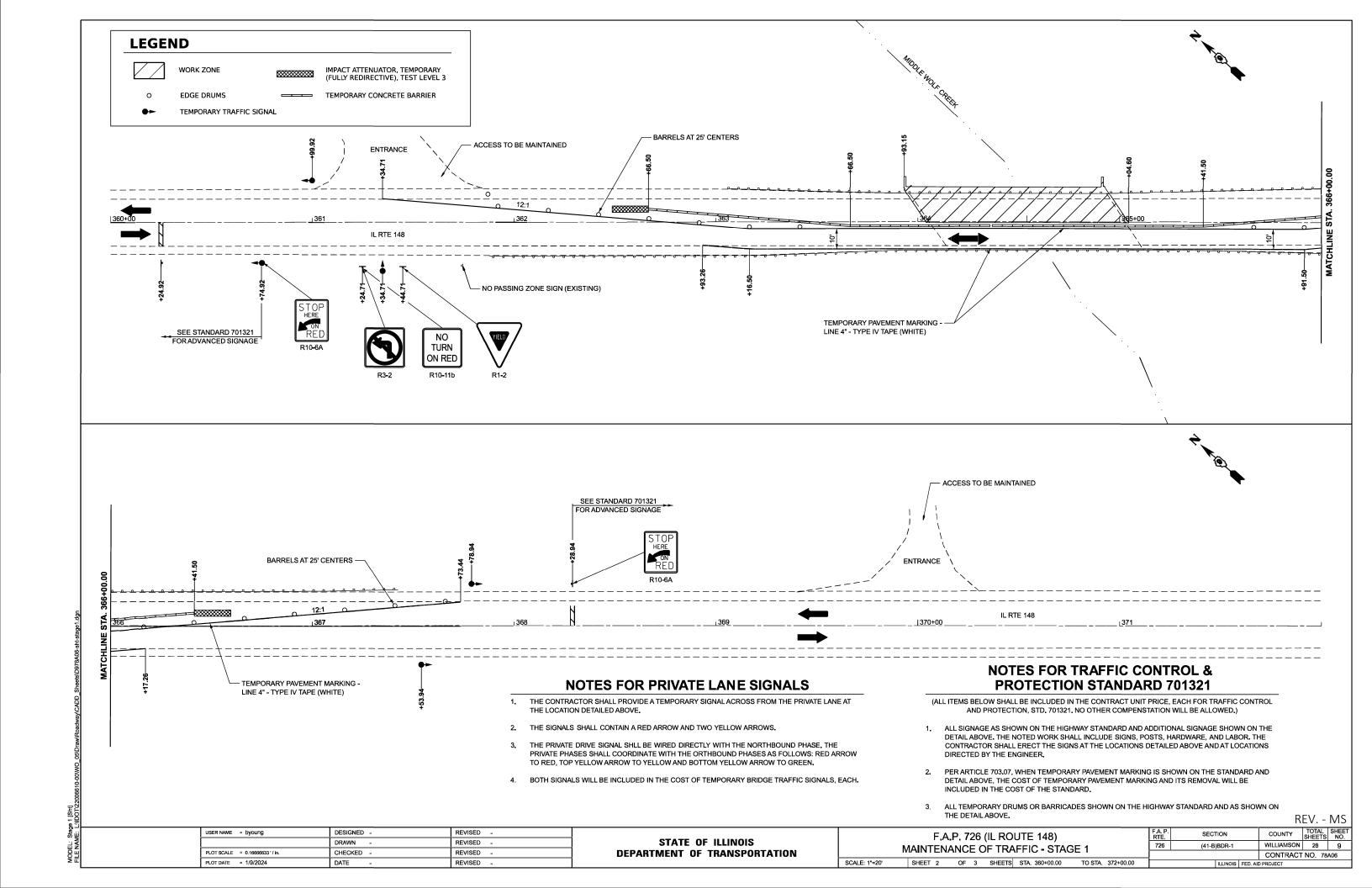
SUGGESTED STAGE 1 CONSTRUCTION

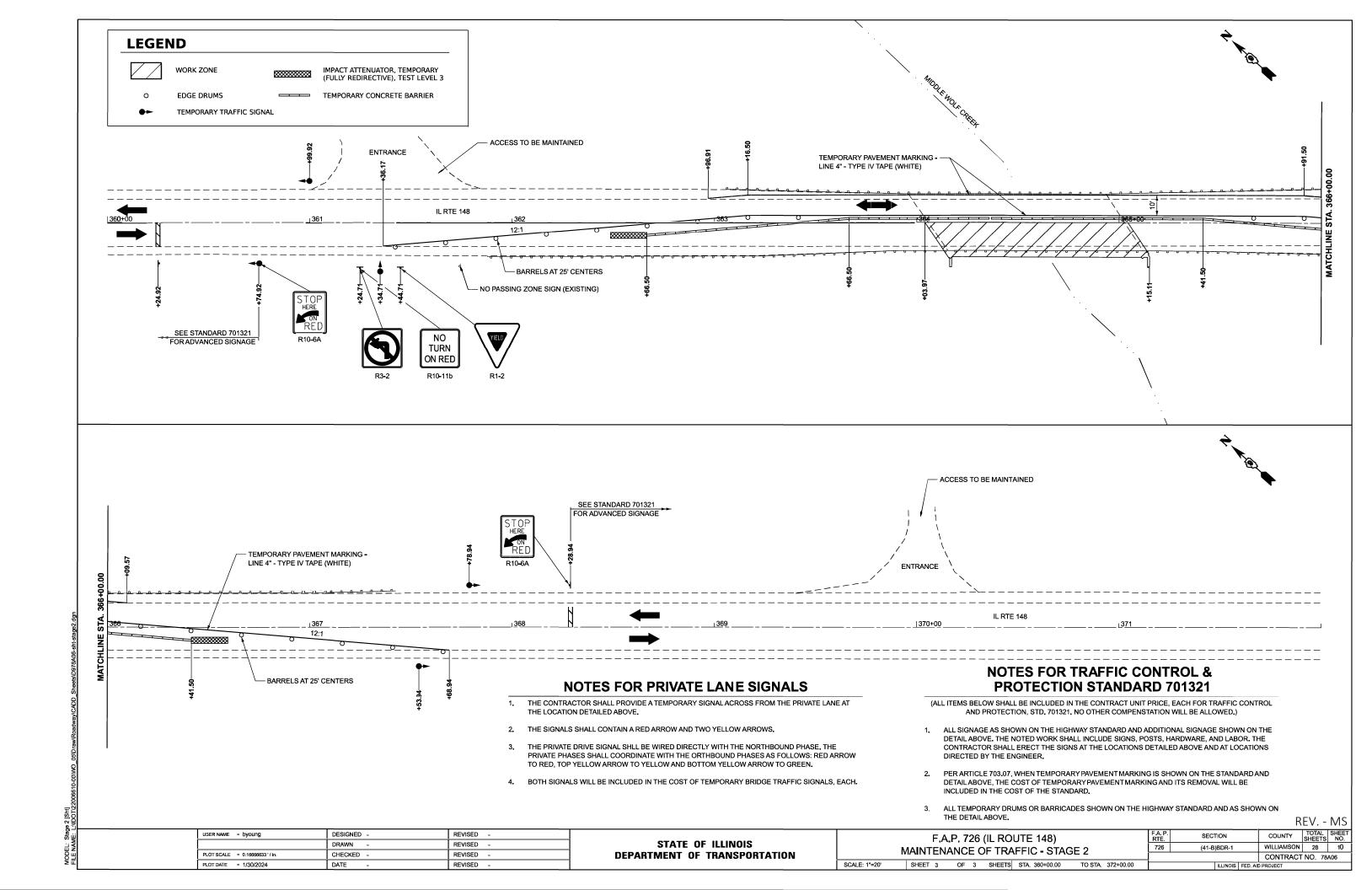
- 1. UTILIZE TRAFFIC CONTROLAND PROTECTION, STANDADRD 701201 AND 701321.
- 2. PLACE TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PLANS.
- 3. UTILIZE TRAFFIC CONTROLAND PROTECTION, STANDARD 701321 AND DIRECT TRAFFIC TO THE SOUTH SIDE (EASTBOUND LANES) OF IL 148. MAKE REPAIRS TO THE NORTH SIDE OF THE EXISTING STRUCTURE.

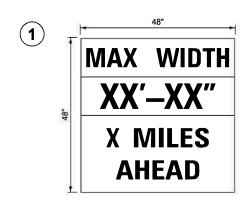
SUGGESTED STAGE 2 CONSTRUCTION

- 1. UTILIZE TRAFFIC CONTROLAND PROTECTION, STANDADRD 701201 AND 701321.
- 2. PLACE TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PLANS.
- 3. UTILIZE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 AND DIRECT TRAFFIC TO THE NORTH SIDE (WESTBOUND LANES) OF IL 148. MAKE REPAIRS TO THE SOUTH SIDE OF THE EXISTING STRUCTURE.

USER NAME = b yo u ng	DESIGNED -	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.P. 726 (IL ROUTE 148) MAINTENANCE OF TRAFFIC - NOTES		F. AP.	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS			726	(41-B)BDR-1	WILLIAMSON 28 8
PLOT SCALE = 0.16666633 '/in.	CHE CKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			1	(11.5)55111	CONTRACT NO 78A06
PLOT DATE = 1/5/2024	DATE -	REVISED -		SCALE:	SHEET 1 OF 3 SHEETS STA. TO STA.		ILLINOIS FED. AID	PROJECT





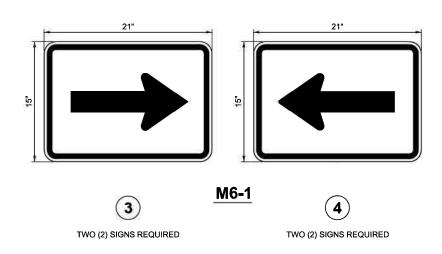


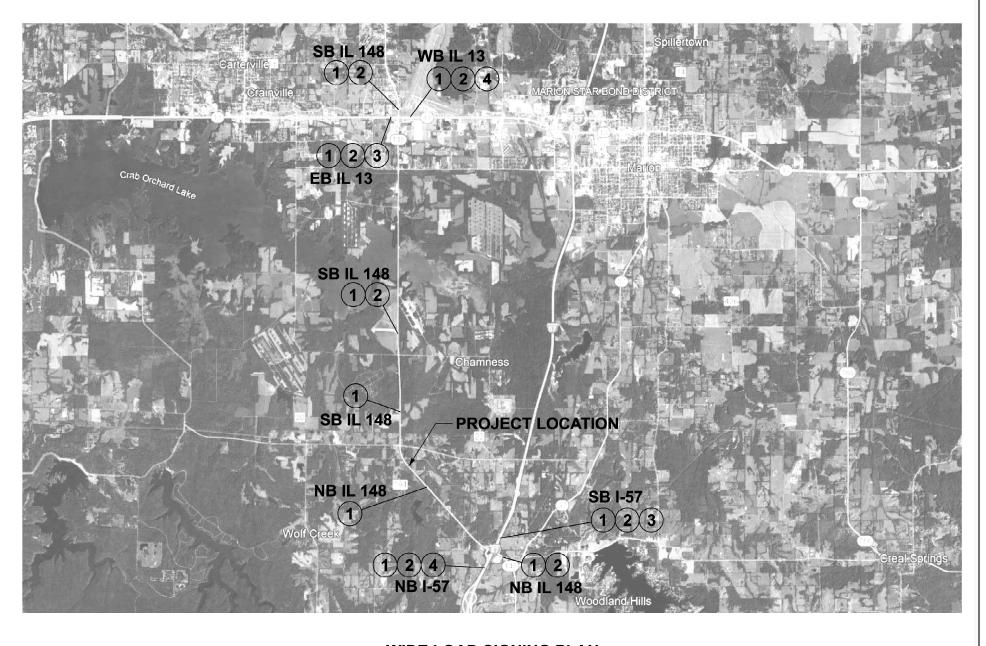
W12-I103

NINE (9) SIGNS REQUIRED



SEVEN (7) SIGNS REQUIRED





WIDE LOAD SIGNING PLAN

WIDE LOAD SIGNING NOTES:

- THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
- THE ABOVE NOTED WORK, INCLUDED SIGNS, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
- 3. FOR WORK ON ALL STRUCTURES, THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 9-7½" OR DIRECTED BY THE ENGINEER, THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

USER NAME = byoung	DESIGNED	REVISED -		E A D 726 (II DOLITE 149)		F.A.P.	SECTION	COUNTY	TOTAL !	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. 726 (IL ROUTE 148)			(41-B)BDR-1	WILLIAMSON	28	11
PLOT SCALE = 0.16666633 ' / in.	CHECKED	REVISED =		WIDE LOAD SIGNING PLAN		726	(*, =,==	CONTRACT	NO. 78A)6
PLOT DATE = 1/30/2024	DATE	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.	1	ILLINOIS FED. AI	PROJECT		\neg

PLAN

DESIGN STRESSES

FIELD UNITS NEW CONSTRUCTION

f'c = 4,000 psify = 60,000 psi (Reinforcement)

EXISTING CONSTRUCTION fc = 1,400 psi

fs = 20,000 psi (Reinforcement)

SCOPE OF WORK

- 1. Remove existing microsilica overlay
- 2. Perform deck and curb repairs as shown
- 3. Perform joint elimination at abutments
- 4. Replace deck drains
- 5. Repair substructures as shown
- 6. Install microsilica concrete overlay

INDEX OF SHEETS

- 1. General Plan & Elevation 2. Stage Construction Details
- 3. Temporary Concrete Barrier
- for Stage Construction
- 4. Deck Patching Plan
- 5. Joint Removal Details
- 6. Joint Replacement Details
- 7. Deck Slab Repair
- 8. Abutment Repairs
- 9. Bar Splicer Assembly and Mechanical Splicer Details

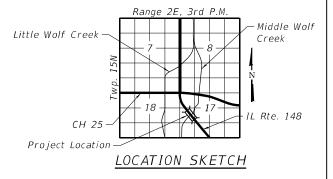
10-16. Existing Plans

GENERAL NOTES

- 1. Reinforcement bars designated (E) shall be epoxy coated.
- 2. Plan dimensions and details are relative to existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 3. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- 4. Prior to pouring the new concrete section, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from steel surfaces to be in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in Concrete Superstructure.

TOTAL BILL OF MATERIAL

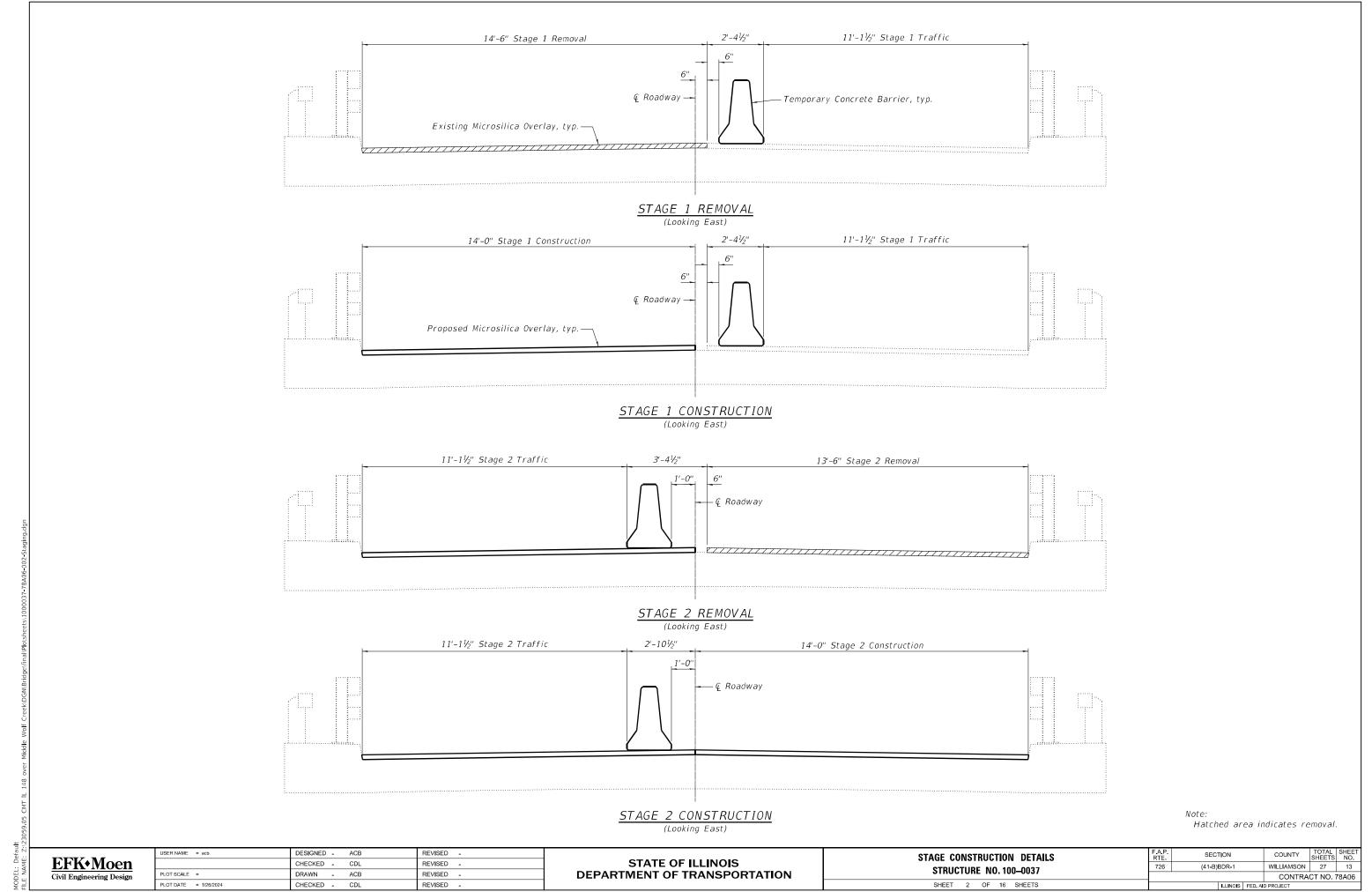
ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	8.0
Floor Drains	Each	8
Concrete Superstructure	Cu. Yd.	15.0
Bridge Deck Grooving	Sq. Yd.	287
Protective Coat	Sq. Yd.	309
Reinforcement Bars, Epoxy Coated	Pound	1,050
Bar Splicers	Each	12
Bridge Deck Scarification 2 3/8"	Sq. Yd.	309
Bridge Deck Microsilica Concrete Overlay 2 3/8"	Sq. Yd.	289
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	14
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	7
Polymer Modified Portland Cement Mortar	Sq. Ft.	42



GENERAL PLAN & ELEVATION IL 148 OVER MIDDLE WOLF CREEK F.A.P. 726-SEC. (41-B)BDR-1 WILLIAMSON COUNTY STATION 364+54.00 STRUCTURE NO. 100-0037



	USER NAME = acb	DESIGNED - ACB	REVISED -		GENERAL PLAN & ELEVATION	F.A.P.	SECTION	COUNTY	TOTAL SHEET
EFK•Moen		CHECKED - CDL	REVISED -	STATE OF ILLINOIS		726	(41-B)BDR-1	WILLIAMSON	27 12
Civil Engineering Design	PLOT SCALE =	DRAWN - ACB	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 100–0037			CONTRA	CT NO. 78A06
0 0 0	PLOT DATE = 2/26/2024	CHECKED - CDL	REVISED -		SHEET 1 OF 16 SHEETS		ILLINOIS FED	. AID PROJECT	



1/26/2024 9:17:33 AM

barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

- Stage removal line ← Stage removal line 1'-101/2" 1'-101/2" Temporary Concrete Barrier See Standard 704001 6" min. min. Drill 3-11/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint * When hot-mix asphalt wearing surface is present, embedment is required when "A" is greater than 3'-1".

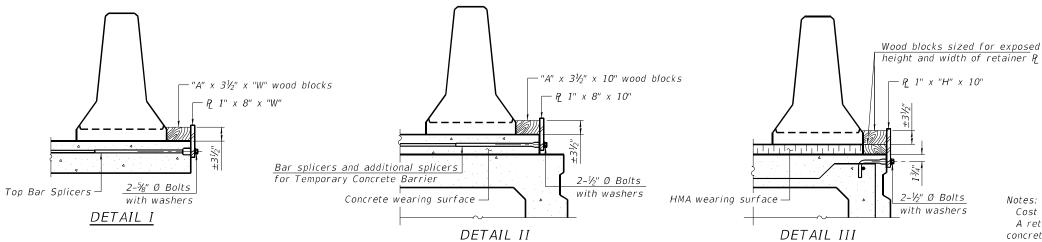
shall be 3" plus the wearing surface depth.

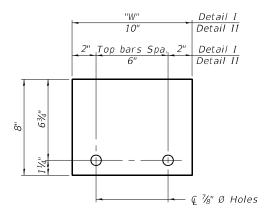
EXISTING DECK BEAM

NEW SLAB OR NEW DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

EXISTING SLAB

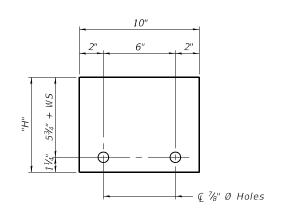




STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)

NCHRP 350 Test Level Railing Weight (plf)



STEEL RETAINER P 1" x "H" x 10" (Detail III)

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate (of each temporary concrete barrier.

BAR SPLICER FOR #4 BAR - DETAIL III

1x8 UNC

1" Ø pin

RESTRAINING PIN

US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 gauge thick washer

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

RAILING CRITERIA

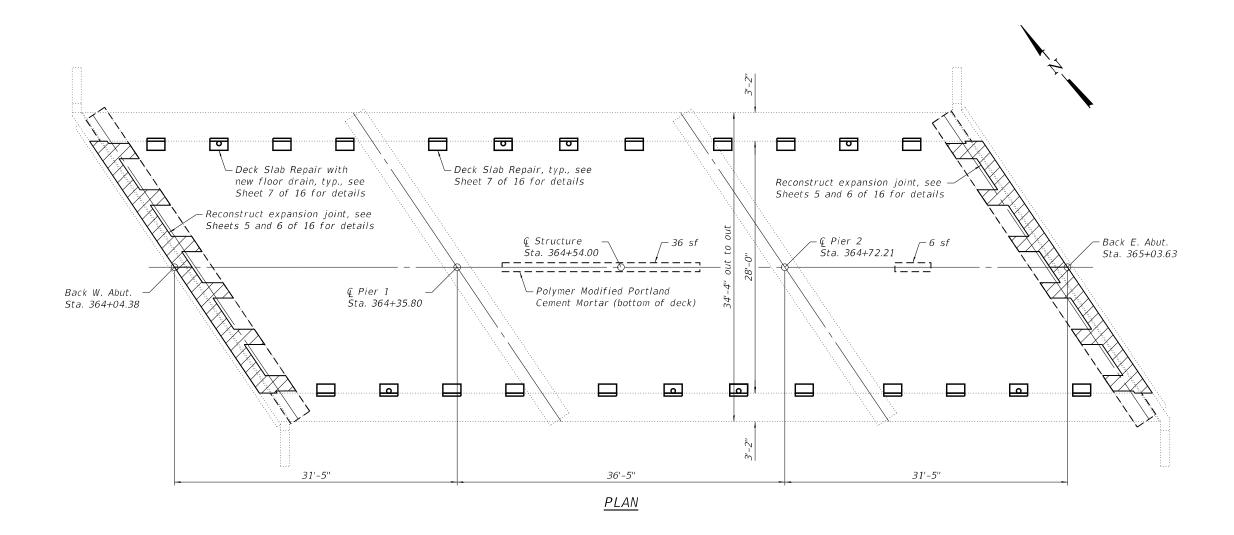
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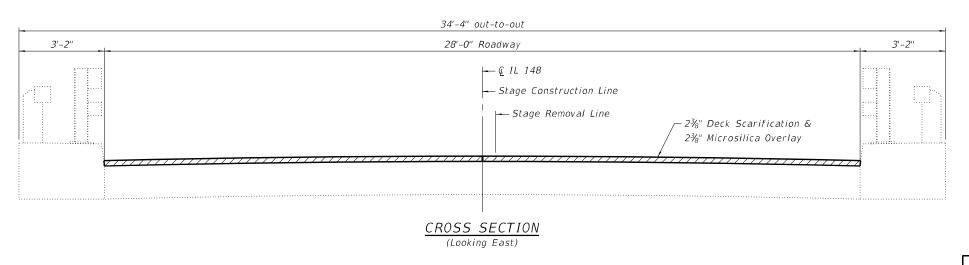
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION COUNTY TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 726 (41-B)BDR-1 WILLIAMSON 27 14 **STRUCTURE NO. 100-0037** CONTRACT NO. 78A06 SHEET 3 OF 16 SHEETS

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BILL OF MATERIAL

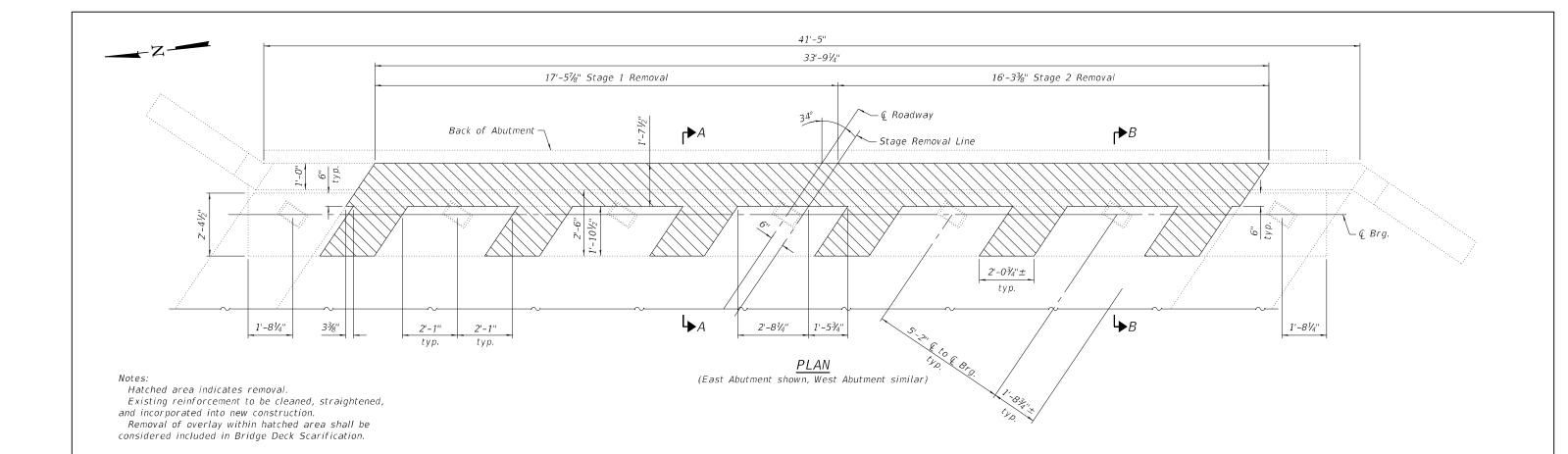
Item	Unit	Total
Bridge Deck Grooving	Sq. Yd.	287
Protective Coat	Sq. Yd.	309
Bridge Deck Scarification 2¾"	Sq. Yd.	309
Bridge Deck Microsilica Concrete Overlay 2¾"	Sq. Yd.	289
Polymer Modified Portland Cement Mortar	Sq. Ft.	42

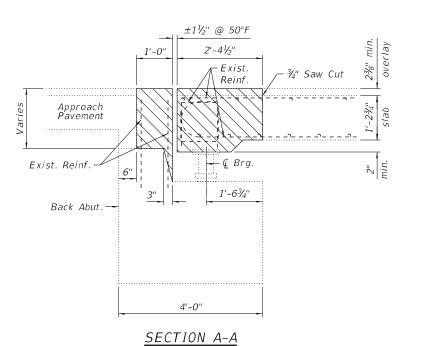
Note:

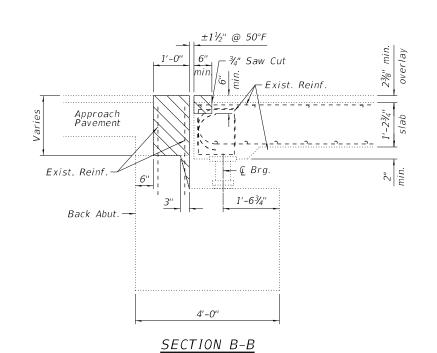
Hatched area indicates removal of the existing overlay to the top of existing deck.

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Civil Engineering Design	PLOT SCALE	-
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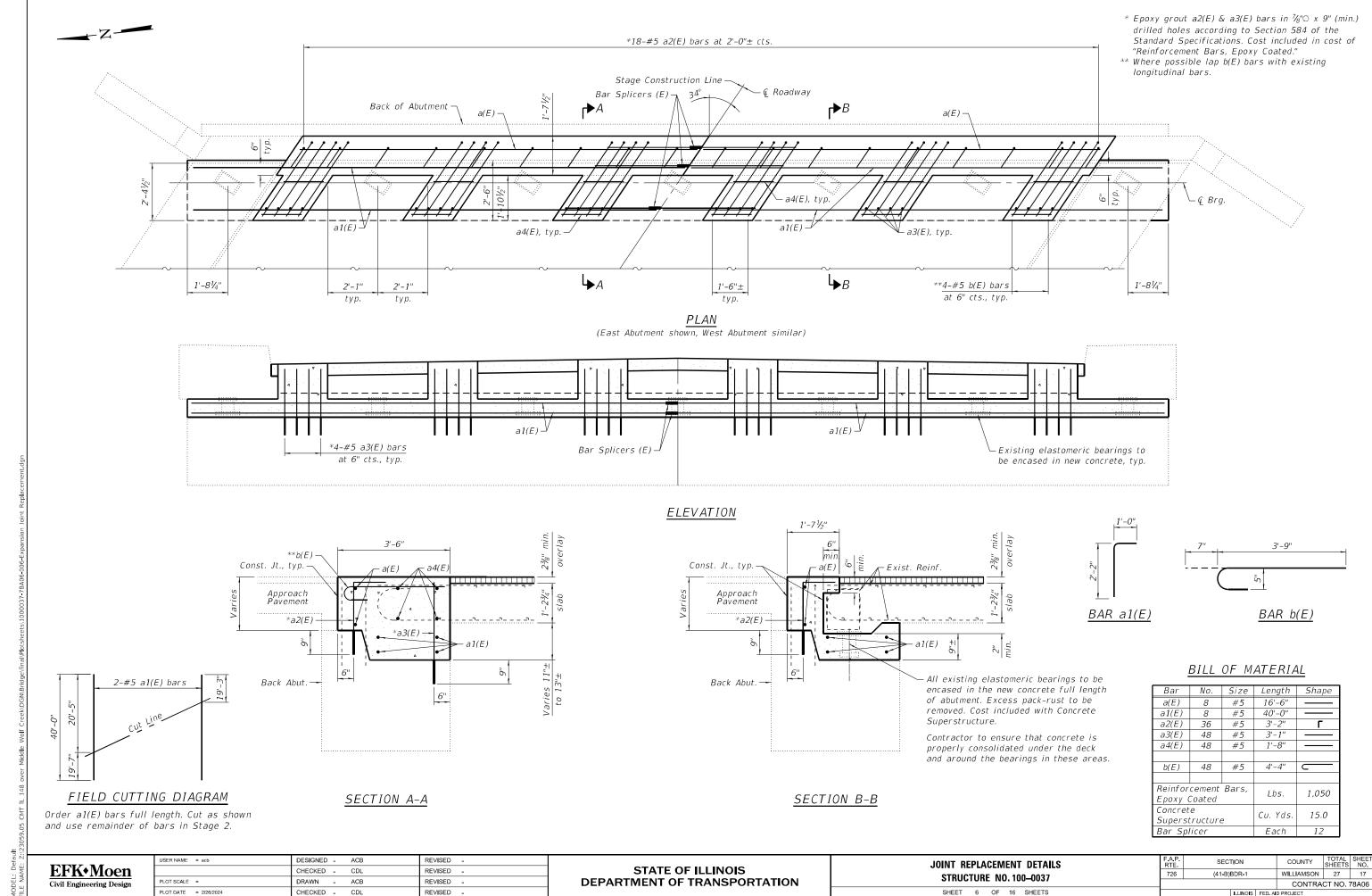
BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	8.0

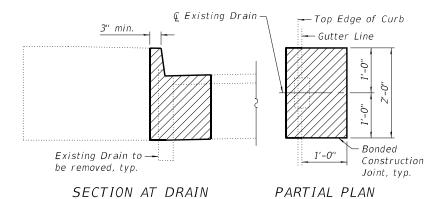
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JOINT REMOVAL DETAILS STRUCTURE NO. 100–0037						F.A.P. RTE	SEC
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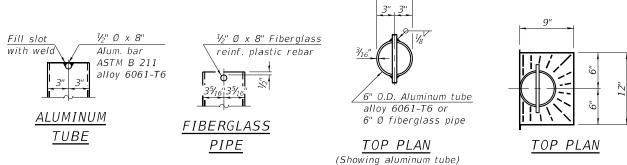


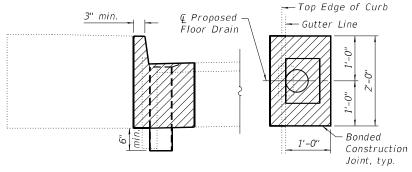
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DECK SLAB REPAIR

Hatched areas indicate sections to be removed and replaced. Dimensions are the minimum required to be removed. Perimeters of concrete removal areas shall be saw cut ¾" prior to the removal of concrete. Cost of concrete removal, including removal of drain, and concrete placement included in Deck Slab Repair (Full Depth, Type I).





SECTION AT DRAIN

PARTIAL PLAN

DECK SLAB REPAIR WITH NEW FLOOR DRAIN

Hatched areas indicate sections to be removed and replaced. Dimensions are the minimum required to be removed.

Perimeters of concrete removal areas shall be saw cut ¾" prior to the removal of concrete. Cost of concrete removal, including removal of drain, and concrete placement included in Deck Slab Repair (Full Depth, Type I). All material and labor to install the floor drains will be included in the cost of Floor Drains.

Notes

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

BILL OF MATERIAL

Item	Unit	Total
Floor Drains	Each	8
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	7

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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 STRUCTURE
 NO. 100–0037
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WEST ABUTMENT ELEVATION



EAST ABUTMENT ELEVATION

Structure Repair of Concrete
(Depth Equal to or Less than 5 Inches)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete	Sg. Ft.	1.1
(Depth Equal to or Less than 5 Inches)	34.11.	14

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Civil Engineering Design

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIRS
STRUCTURE NO. 100–0037

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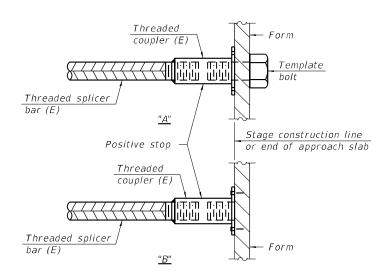
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

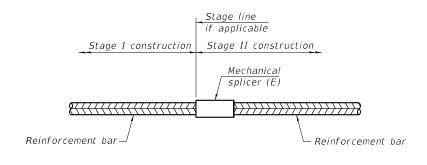
Location	Bar size	No. assemblies required	Minimum Iap length
West Deck Joint	#5	6	3'-6"
East Deck Joint	#5	6	3'-6"



INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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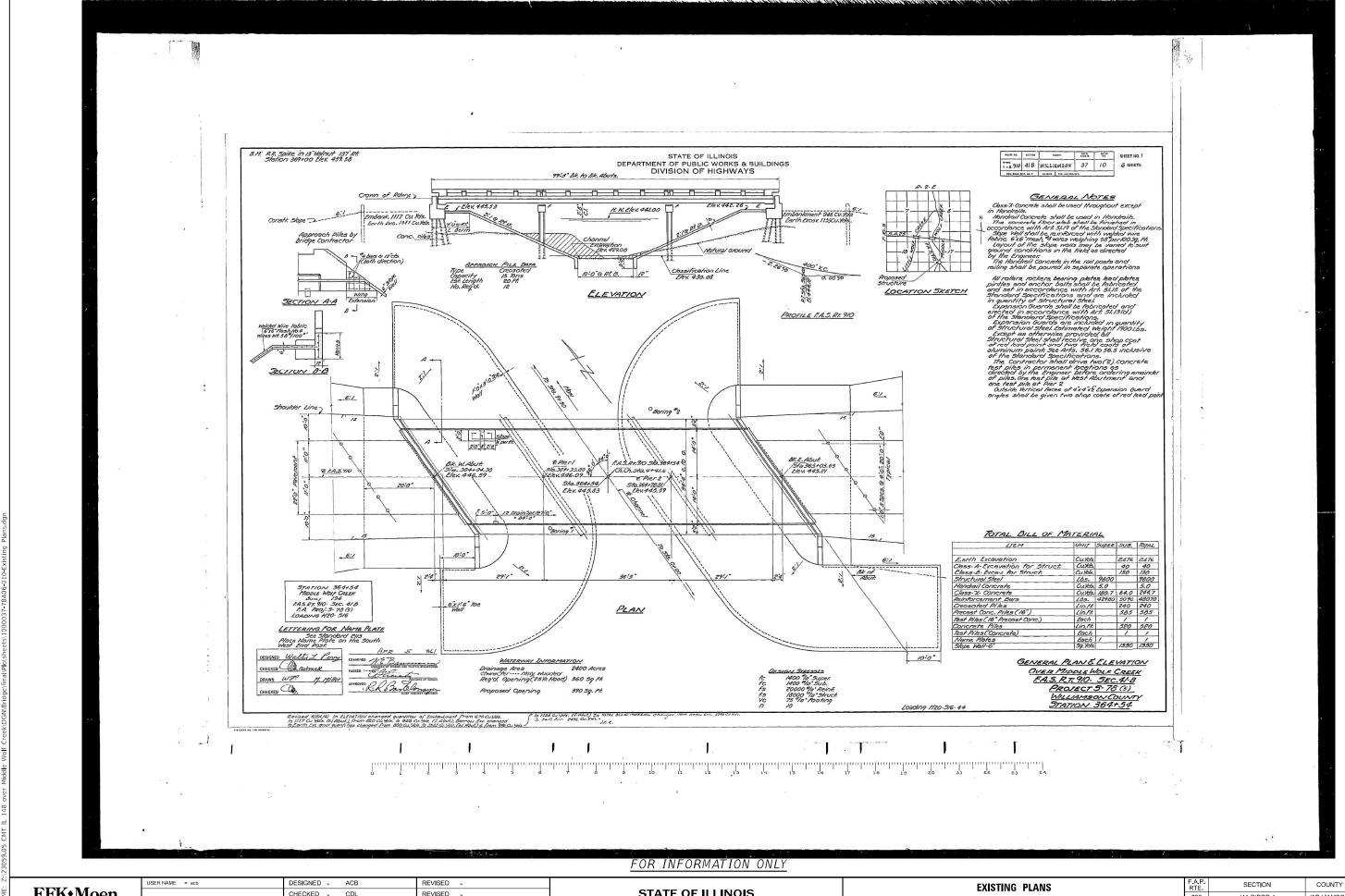
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 100–0037

SHEET 9 OF 16 SHEETS

| FA.P. | SECTION | COUNTY | TOTAL SHEETS | NO. |
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION STRUCTURE NO. 100-0037

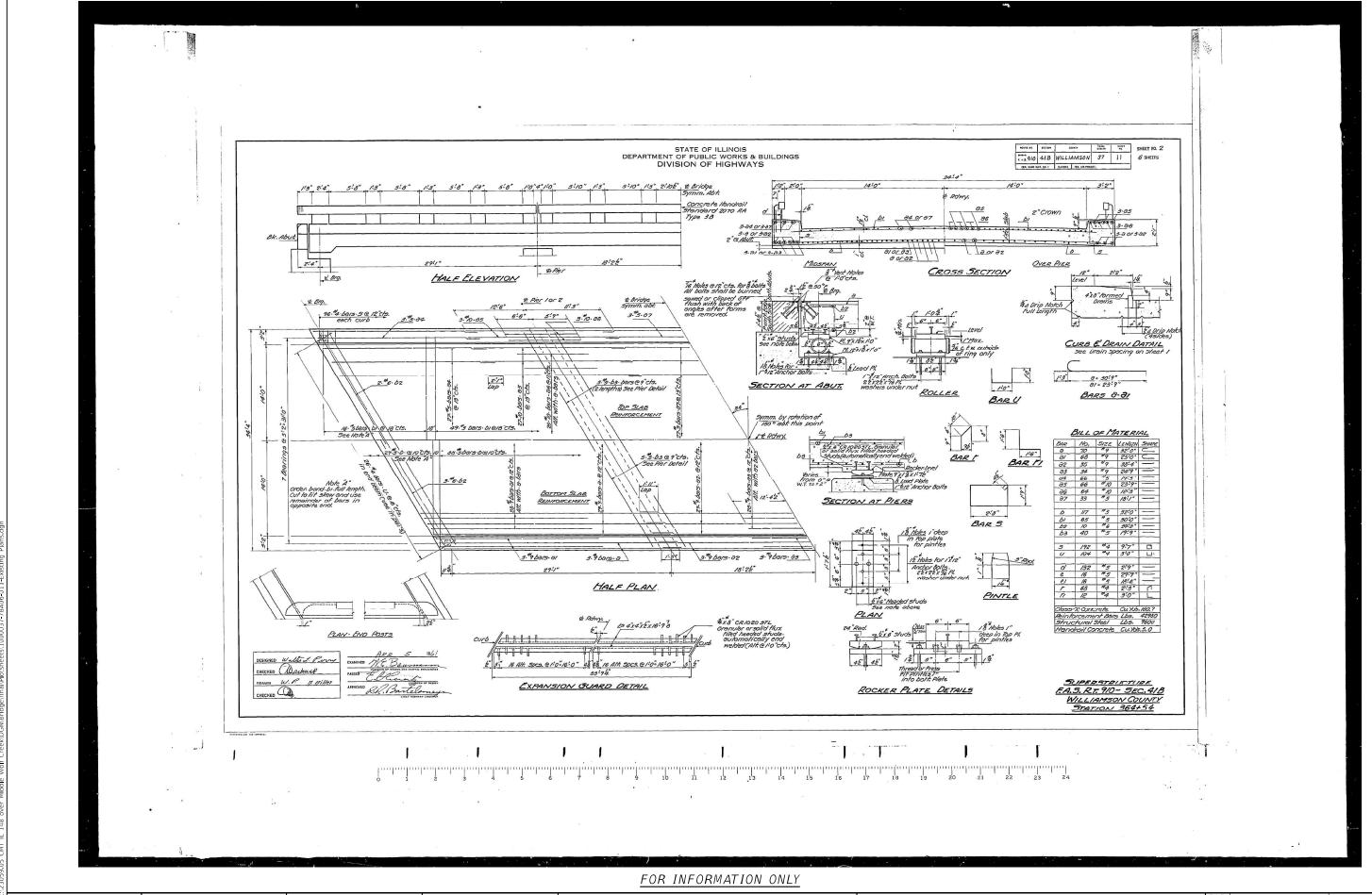
SHEET 10 OF 16 SHEETS

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 ILLINOIS FED. AID PROJECT



EFK•Moen

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

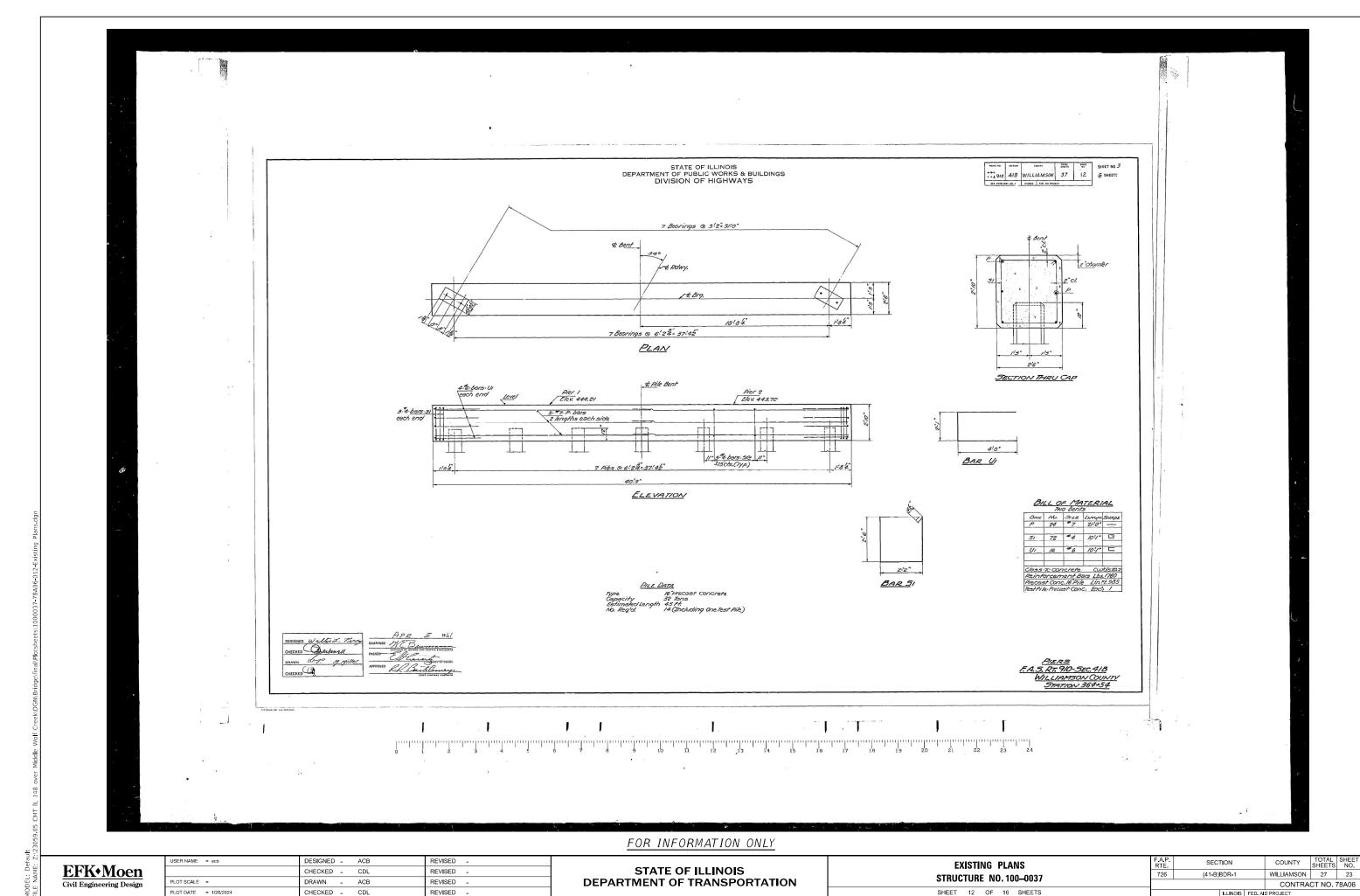
EXISTING PLANS
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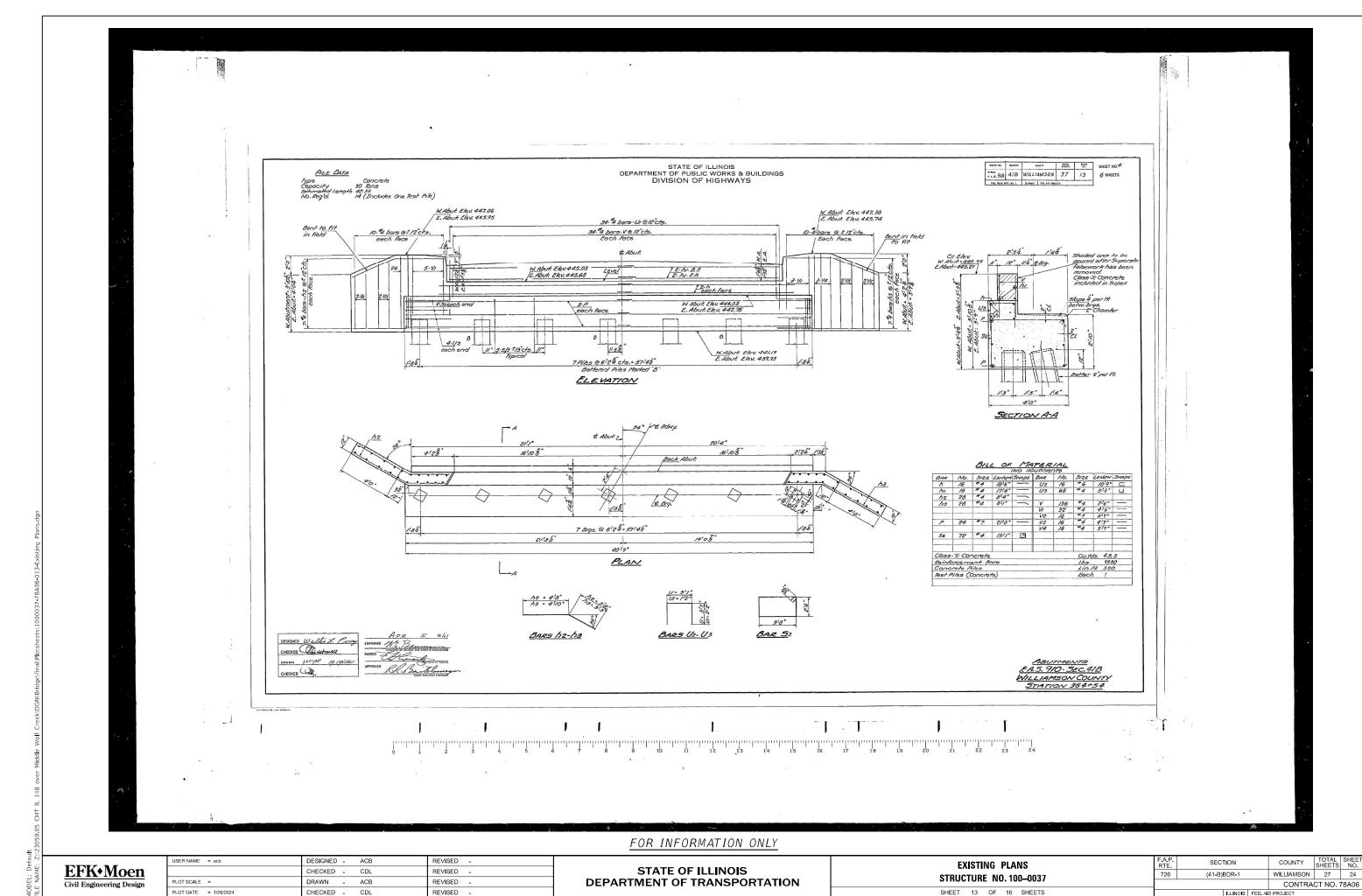
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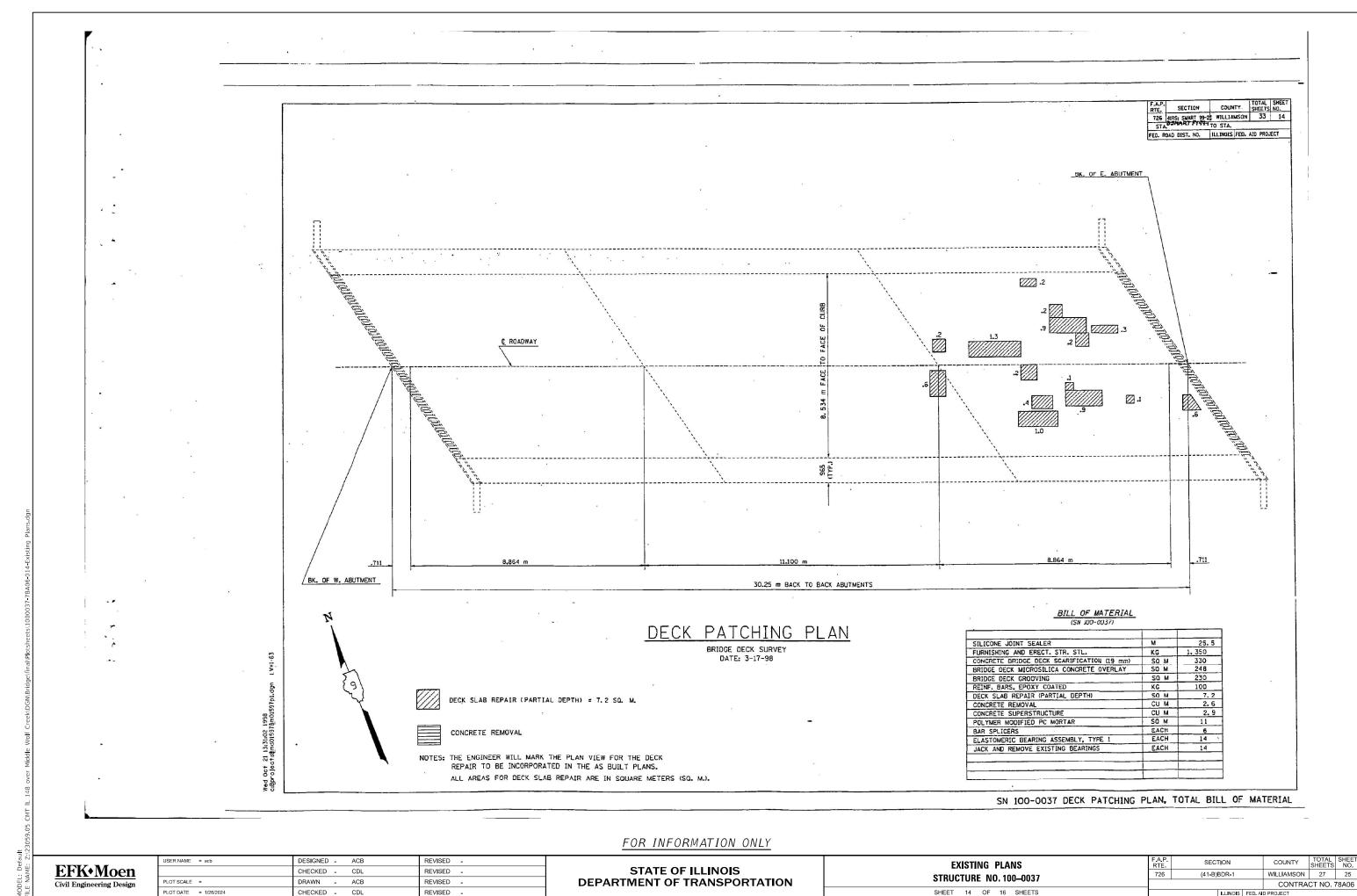
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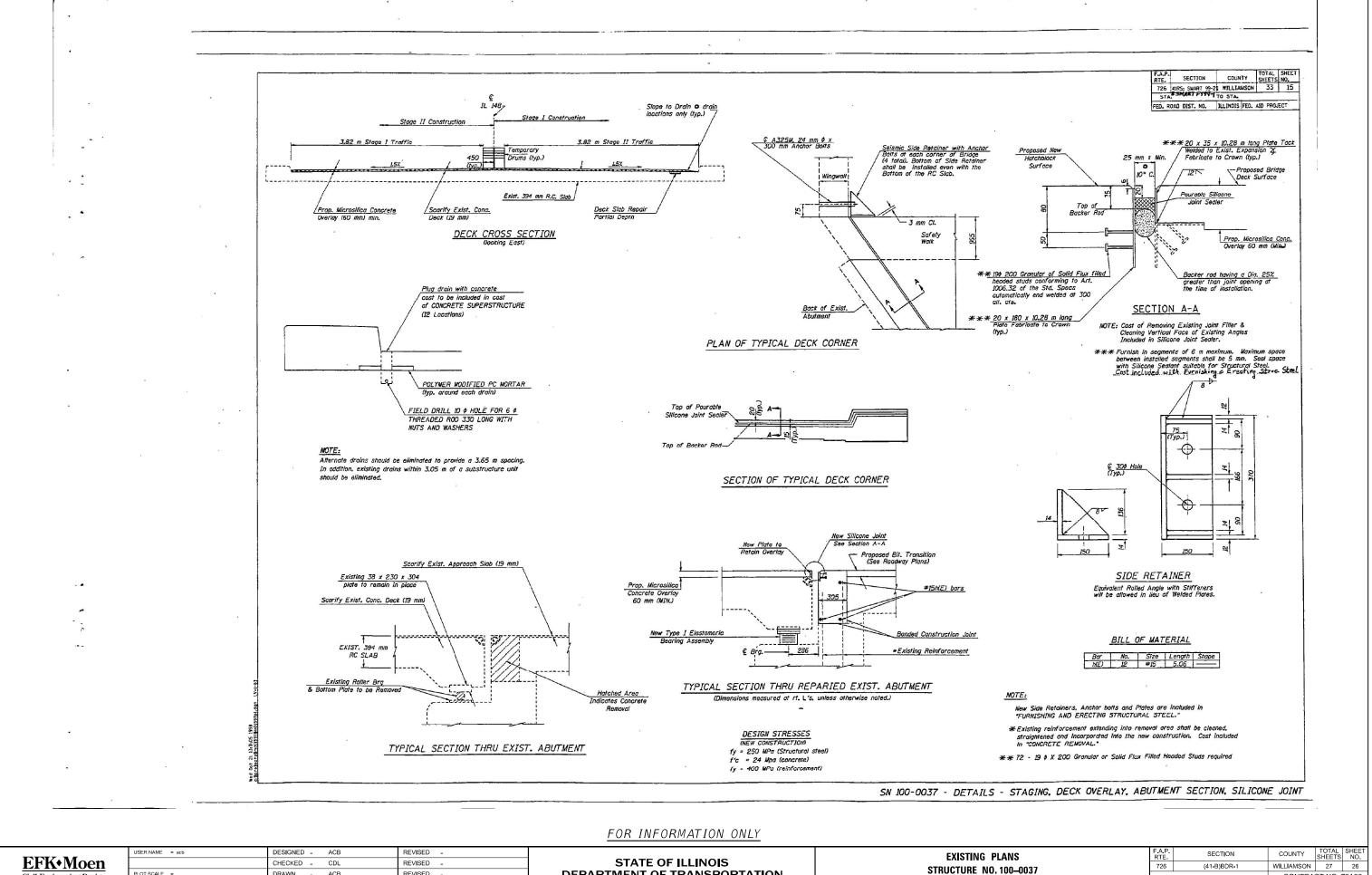
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DEPARTMENT OF TRANSPORTATION

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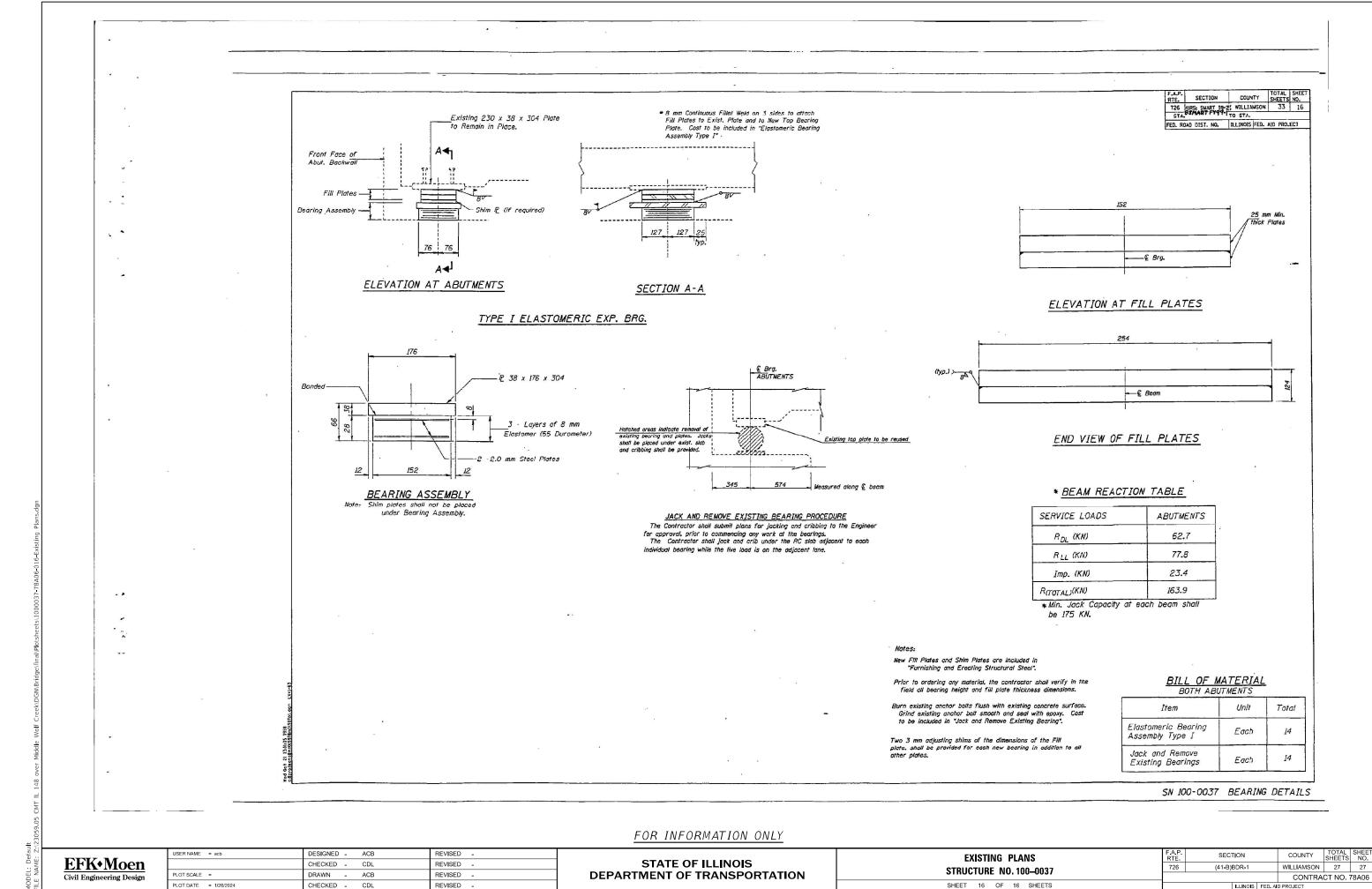
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